



Nanophotonic Biosensors: Challenges and Development

Guest Editor:

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Message from the Guest Editor

In the last two decades, optical biosensors have been the subject of intense research because of their capability for miniaturization and multiplexing. In addition, they can quantitatively detect extremely low concentrations of analytes in real time and without the need for labeling tags.

Additionally, optical biosensors fabricated with polymers or silicon-based technologies are candidates for point-of-care solutions in which pre-functionalized, disposable chips are used in conjunction with a readout system to provide diagnostics that would otherwise require specialized laboratories and trained personnel. Moreover, the fabrication of these devices, by using processes compatible with CMOS standard processes, open the door toward low-cost and mass production.

This Special Issue will provide a forum for the latest research activities in the field of nanophotonic biosensors.

- Novel photonic biosensor designs
- Label-free optical sensing
- New development in optical for sensing applications
- Silicon photonics for biosensing
- Integration of photonic biosensors
- Microfluidic devices for optical sensing
- Polymer-based optical sensors





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Message from the Editor-in-Chief

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